

Applicant: Donald L. Schilling
Application No.: 10/072,083

IN THE CLAIMS

1. (Currently Amended) A spread spectrum base station comprising:

means for receiving a combined spread spectrum signal, the spread spectrum signal including a reference signal and a plurality of message signals, the message signals having message data;

means, including a plurality of detector means and synchronization means,
for detecting the reference signal within the received combined spread spectrum signal;

means for generating a base reference signal at the base station;

means to synchronize the base reference signal with the detected reference signal; and

means for recovering the message data of at least one of the message signals using information from the detected reference signal, said means demodulating each of a plurality of message data signals.

2. (Previously Presented) The base station of claim 1 further comprising:

means for recovering a carrier signal from the spread spectrum signal using the reference signal; and

wherein the message data recovering means uses the recovered carrier signal to recover the message data.

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3. (Previously Presented) The base station of claim 1 wherein the spread spectrum signal is in a code division multiple access format.

4. (Currently Amended) A spread spectrum base station comprising:

means for receiving a combined spread spectrum signal, the spread spectrum signal including a reference signal and a message signal, the message signal having message data;

means, including a plurality of detector means and synchronization means,
for recovering a carrier signal of the combined spread spectrum signal using information from the detected reference signal;

means for generating a base reference signal at the base station;

means to synchronize the base reference signal with the detected reference
signal; and

means for recovering the message data using the recovered carrier signal.

5. (Previously Presented) The base station of claim 4 wherein the spread spectrum signal is in a code division multiple access format.

6. (Currently Amended) A spread spectrum base station comprising:

means for detecting a remote-generic-chip-code signal;

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means for producing a message signal having message data;

means for producing a [reference] a base-chip-code signal, the [reference] base-chip-code signal for use in recovering the message data from a combined spread spectrum signal;

means to produce a base message signal having base message data;

means for combining the [reference] base-chip-code signal and the base message signal as a combined signal; and

means for transmitting the combined signal as the combined spread spectrum signal.

7. (Currently Amended) A spread spectrum base station comprising:

means for detecting a remote-generic-chip-code signal;

means for producing a plurality of message signals, each message signal having message data;

means for producing a [reference] a base-chip-code signal, the [reference] base-chip-code signal for use in recovering the message data from a combined spread spectrum signal;

means to produce a transmitted message signal having base message data;

means for combining the [reference] base-chip-code signal and the base message signal as a combined signal; and

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means for transmitting the combined signal as the combined spread spectrum signal.

8. (new) The base station of claim 1, wherein:

the means for generating a base reference signal at the base station relays the reference signal, the base reference signal transmitted from the base station;

the base station spread-spectrum processes the base message data with the base reference signal, and combines the spread-spectrum-processed base message data with the base-reference signal as a base-CDMA signal; and

the base station transmits the base-CDMA signal over a communications channel to a remote station.

9. (new) The base station of claim 1, wherein:

the means for generating a base reference signal at the base station uses the reference signal to set the timing for a different base reference signal, the base reference signal transmitted from the base station;

the base station spread-spectrum processes the base message data with the base reference signal, and combines the spread-spectrum-processed base message data with the base-reference signal as a base-CDMA signal; and

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the base station transmits the base-CDMA signal over a communications channel to a remote station.

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10. (new) The base station of claim 4, wherein:

the means for generating a base reference signal at the base station relays the reference signal, the base reference signal transmitted from the base station;

the base station spread-spectrum processes the base message data with the base reference signal, and combines the spread-spectrum-processed base message data with the base-reference signal as a base-CDMA signal; and

the base station transmits the base-CDMA signal over a communications channel to a remote station.

11. (new) The base station of claim 4, wherein:

the means for generating a base reference signal at the base station uses the reference signal to set the timing for a different base reference signal, the base reference signal transmitted from the base station;

the base station spread-spectrum processes the base message data with the base reference signal, and combines the spread-spectrum-processed base message data with the base-reference signal as a base-CDMA signal; and

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the base station transmits the base-CDMA signal over a communications channel to a remote station.

12. (new) The base station of claim 6, wherein:

the means for generating a base-chip-code signal at the base station relays the detected chip-code signal, the base-chip-code signal transmitted from the base station;

the base station spread-spectrum processes the base message data with the base-chip-code signal, and combines the spread-spectrum-processed base message data with the base-chip-code signal as a base-CDMA signal; and

the base station transmits the base-CDMA signal over a communications channel to a remote station.

13. (new) The base station of claim 6, wherein:

the means for generating a base-chip-code signal at the base station uses the detected chip-code signal to set the timing for a different base-chip-code signal, the base-chip-code signal transmitted from the base station;

the base station spread-spectrum processes the base message data with the base-chip-code signal, and combines the spread-spectrum-processed base message data with the base-chip-code signal as a base-CDMA signal; and

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the base station transmits the base-CDMA signal over a communications channel to a remote station.

14. (new) The base station of claim 7, wherein:

the means for generating a base reference signal at the base station relays the reference signal, the base reference signal transmitted from the base station;

the base station spread-spectrum processes the base message data with the base reference signal, and combines the spread-spectrum-processed base message data with the base-reference signal as a base-CDMA signal; and

the base station transmits the base-CDMA signal over a communications channel to a remote station.

15. (new) The base station of claim 7, wherein:

the means for generating a base reference signal at the base station uses the reference signal to set the timing for a different base reference signal, the base reference signal transmitted from the base station;

the base station spread-spectrum processes the base message data with the base reference signal, and combines the spread-spectrum-processed base message data with the base-reference signal as a base-CDMA signal; and

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the base station transmits the base-CDMA signal over a communications channel to a remote station.